

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***PERMIT STATEMENT OF BASIS***

Title V–Draft Permit No. V-02-002

Kentucky State Reformatory

3001 West Highway 146

LaGrange, Kentucky 40032

February 21, 2002

Ben Markin, Reviewer

Plant I.D. #: 21-185-00012

Application Log #: 54193

**SOURCE DESCRIPTION:**

A construction/operating permit application was received from Kentucky State Reformatory on October 03, 2001 and was considered complete on November 20, 2001. The applicant proposes to construct/operate two natural-gas fired indirect heat exchangers with backup #2 fuel oil rated at 70 mm BTU/hr each, operate three existing permitted boilers and disconnect one that has been out of service for more than a year at their source in LaGrange, Kentucky. The source is taking self- imposed limits to preclude the applicability of Prevention of Significant Deterioration (PSD)[Regulation 401 KAR 51:017] review.

**COMMENTS:**

This facility is located in Oldham County, Kentucky. Oldham County was classified as attainment for TSP, sulfur dioxide, carbon monoxide, nitrogen oxides, and lead and moderate non-attainment for ozone. However, the USEPA has reclassified the moderate non attainment area to attainment on November 23, 2001. The addition of the two new boilers increases the source-wide emissions of nitrogen oxide and carbon monoxide over 100 tons per year, making it a major source hence, Title V Operating Permit is required for the facility.

Based on the information provided, the Division concluded that Regulation 401 KAR 59:015 and 60:005 incorporating by reference 40 CFR 60 Subpart Dc apply to the new boilers including the permitted boiler in 1999, while Regulation 401 KAR 61:015 apply to the existing boilers. Regulation 401 KAR 59:010 applies to the spray booths, paint machine and the baking ovens.

Specifically, the allowable emissions limits of 0.10 and 0.37 lb/mmBtu from Regulation 401 KAR 59:015 Section 4 and 61:015, Section 4 apply to particulate matter (PM) emissions generated while burning natural gas and residual oil respectively. The allowable sulfur dioxide emission limit of 0.507 lb/mmBtu and 4.05 lb/mmBTU/hr from Regulation 401 KAR 59:015 Section 5 and 61:015, Section 5 for natural gas and residual oil.

Emissions were calculated based on AP 42(7/98) tables 11-3.1.and 1-4. The results of the analysis are

summarized in the air quality analysis and indicate that the standards will not be exceeded. Since this review has disclosed that all requirements will be met, a preliminary determination that an operating permit may be issued as conditioned, but contingent to the satisfactory resolution of any adverse public comments which might be received. Additional information used in making this review was obtained from existing agreed limitations on file records.

**EMISSION AND OPERATING CAPS DESCRIPTION:**

Source-wide usage of #2 fuel oil for all boilers and diesel generators shall not equal or exceed 231,845 gallons per year. Allowable hours of operation for each boiler using #2 fuel oil shall not exceed 96 hours and 52 hour for each generator per each consecutive twelve (12) month rolling total.

Other operating limitations for paint line and ovens are in the permit.

**OPERATIONAL FLEXIBILITY:** None

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.